

section of the website. Here, SPE directors and members are encouraged to write and share best practices from their respective fields. The final documents are posted to the website, after which the greater SPE membership can read the best practice, comment, and ask questions.

Auzerais stressed that while the website is set up to run discussion threads, there has been a conscious decision to not do this for now. "Discussion groups are the domain of the TIGs, which are very well designed for this. We have found a great many technical presentations that were recorded and available in podcast form. The concept of setting up portals where people could listen to presentations was more important to us than starting a chat room.

"However, it is very possible that these portals and the TIGs may be converging more toward each other in the future," Auzerais continued. "As a matter of fact, that convergence could be a solution to the current challenge of a shortage of dedicated people who are willing and able to move the industry forward. By converging and regrouping we will get the best of both worlds: a portal of information being used by those who want to chat. Because the portal is rich in information, then the chat could be simplified greatly. The answer in a chat room could simply be to direct the person to a section on the website to view a presentation or download a podcast. It is even possible to foresee a chat resulting in more documentation which could be sent back to the portal."

**Annual Technology Meetings to Share Experiences and Best Practices.** The final major goal of the technical section will be annual technology-exchange meetings, designed to expand both the technology offerings on the website and the section's membership. The first meeting will be hosted by Schlumberger in Houston later this year.

Auzerais envisions meetings like this as helping to raise both awareness and membership levels. "Going forward, we need to grow the membership, which will give the section greater exposure. More members will translate to more information and best practices being available on the site, which will cause more people to think of us as a definitive resource."

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## SPE Membership Recruitment Remains Strong

During the 2008 Build the World of SPE contest, SPE members successfully recruited 479 new members. The Middle East posted the highest number of new members—120—for the second year in a row. The winners are listed below by regions.

Region	Winner	Section	Members Recruited
Africa	Adewale Dosunmu	Port Harcourt Nigeria	49
Central and Southeastern			
North America	Herbert Bell	Dallas	22
Gulf Coast			
North America	Tuan Ma	Gulf Coast	5
Middle East	Marwan Al-Zadjali	Oman	120
North Sea	Anderson Sooklal	Copenhagen	5
Northeastern			
North America	Hitesh Mohan	National Capital	5
Northern Asia Pacific			
	Zou Gang	Beijing China	97
Rocky Mountain			
North America	Helen Chang	Canadian	6
Russia and the Caspian	Mark Langston	Kazakhstan	19
South America and Caribbean			
	Ernesto Durán	Colombian	94
South, Central, and East Europe			
	Constantin Popa	Romanian	14
Southern Asia Pacific	Vincent Santostefano	Western Australian	43

In recruiting new members, the SPE Century Club recognizes members who have signed up 100 or more new members. Century Club members receive many benefits for their membership development achievements including life membership, which exempts them from annual dues. New members of the Century Club were inducted during the President's Luncheon at the 2008 SPE Annual Technical Conference and Exhibition in Denver. The members are Marwan Al-Zadjali, Oman Section; Chanchal Dass, India Section Secretary; Santanu Hati, Mumbai Section Secretary; N.K. Mitra, Mumbai Section and SPE India Council Chairperson; Phongsthorn Thavisin, Thailand Section; and Chengjin Xue, Southern China Section.



Hati

Hati, Chief Engineer (Production) for Oil & Natural Gas Corporation, recruited 105 new members by keeping his membership recruitment technique simple. He said he explained to prospective members SPE's benefits for personal and collective growth as well as lifelong learning. Many felt a strong need to be part of a like-minded team, Hati said. "People saw the increased activities of the Mumbai section such as monthly technical presentations by eminent personalities of the country and abroad, in particular the Distinguished Lecture series. The Applied Technology Workshops and conferences

organized in Mumbai also generated interest to be part of the society,” he said. Hati also promoted annual family functions and the support given to young professionals.

A member since 2003, Hati’s primary motivation to recruit members is the importance of sharing knowledge. Knowledge shared is knowledge gained many fold, Hati said. He believes there is gradual and continuous learning from student to young professional to a matured and fully developed individual. “People should join SPE, simply put, because it provides an opportunity for learning after formal education is over,” Hati said. “There are no boundaries in SPE with fixed chapters and courses, but an ever-expanding ocean of knowledge to be shared and used for technical and professional growth. There is something in it for each and every individual, such as *JPT*, the eLibrary, technical journals, and conferences for all and the Applied Technology Workshops and Forum Series for the experts.”



Al-Zadjali

Al-Zadjali, Production Engineer for Schlumberger Information Solutions, is the membership recruitment contest winner for the Middle East region. Al-Zadjali, a new Century Club member, used many techniques to recruit 120 new members. Establishing networks and trying to make good connections between more senior SPE members and young professionals was a key factor for

his success, Al-Zadjali said. “Encouraging people to attend the Oman Section’s monthly meetings, seminars, and other technical events made those people aware of SPE’s professionalism. Membership campaigns were coordinated to inform potential members about SPE and encourage them to join. These were covered in events such as Oil and Gas West Asia Exhibition and Conference in Muscat, Oman. In this international exhibition, there is a dedicated booth for the Oman Section to handle membership issues and to answer any questions related to our section. Also, recruiting posters were made and distributed all over.”

“My support mainly went to newcomers to the industry who are our future to sustain the success of this society,” Al-Zadjali said. “SPE not only concerns engineers in oil and gas industry, but it goes further to build personal and

professional networks, develop leadership skills, and offer individual career resources and access technology.”

Al-Zadjali joined SPE in 2000 and has been active in the Oman Section since the end of 2004 when he joined the Section Board as Secretary. By the end of 2007, he had become Membership Chairperson for the section. When Al-Zadjali transferred to another location, his colleague Smina Al-Mahrooqi took over Oman Section membership issues.



Durán

Durán, SPE Colombian Section President, is the membership recruitment contest winner for the South America and Caribbean region. “Our recruitment technique was an integrated idea among the officers of the SPE Colombian Section,” he said. Durán and the section sent formal letters to all the oil and gas companies in Colombia. In the letter, they asked company general managers if they could set up an SPE desk in the lobby or in a conference room within the building.

“As a Colombian Section President, I always look forward to helping people in the industry. One of the organizations that truly contributes to this goal is SPE,” he said. “Sharing this vision of contribution between students and less-experienced people with highly experienced people motivates me to share all the SPE benefits with the industry in Colombia.”

Durán, an SPE member for the past 13 years, hopes to recruit at least the same number of people this year as he did last year. Even though the industry is facing an economic downturn, SPE will continue helping people in their careers, he said.

“I would say that most people in the industry, even our current members, would be surprised of all the benefits of being an SPE member,” he said.

The 2009 Build the World of SPE member recruitment contest began 1 January 2009 and ends 31 December 2009. SPE members do not need to sign up for the contest. Once a member recruits a new member, his or her name is listed on the application and SPE automatically enters the member in the contest. To learn more about the contest, go to [www.spe.org/recruit](http://www.spe.org/recruit).



**The 2008 Century Club winners were inducted during the President’s Luncheon at the 2008 SPE Annual Technical Conference and Exhibition in Denver. From left: Bill Cobb, 2008 SPE President; N.K. Mitra, Mumbai Section and SPE India Council Chairperson; Chanchal Dass, India Section Secretary; Santanu Hati, Mumbai Section Secretary; and Phongsthorn Thavisin, Thailand Section.**



**The inauguration of the SPE Surat Section took place on 17 November 2008. Pictured from left are: Manoj Pandey, SPE Surat Section Secretary; Lal Chand Ram, General Manager, Oil & Natural Gas Corporation (ONGC); Amar Jha, SPE Surat Section Program Chairperson; N.K. Mitra, SPE India Council Chairperson and Director ONGC; Anil K. Johari, SPE Surat Section Chairperson; V.K. Yadav, General Manager, ONGC; and Amit Dave, SPE Surat Section Treasurer.**

## HYDRAULIC FRACTURING (Contd. from page 56)

render them insoluble, to pump from the surface to the formation successfully. The insoluble material can be made into the proppant matrix.

**Proppants.** The amount of proppants used in slickwater fractures is relatively small when compared to conventional fractures. Selection of proppants is critical in a slickwater design. With the use of extremely large volumes of water (more than 5 million gal), proppant placement can be an issue. In a study of the placement of proppants in slickwater applications, findings showed that a 20/40-mesh lightweight proppant with a specific gravity (SG) of 1.25 in viscosified 9.4 lbm/gal brine had virtually no proppant settling. For proppant placement, there are several factors to consider when designing a fracture job: SG of the fluid and proppant, slurry-flow rate, and fluid viscosity.

Sand proppants with an SG of approximately 2.6 should be rather small to work in slickwater fractures.

The smaller the size of proppant, the greater the transport, assuming all other parameters are the same. The higher the SG, the shorter the transport, assuming the same size.

It must be considered that there is a tradeoff between strength and SG of the proppant. Sand typically has an SG of approximately 2.6 and ceramics have approximately 2.7. Recently, ultralightweight proppants have come onto the market; they are a chemically modified walnut shell with resin coating with a measured 1.25 SG. There are limitations to this material, however; it is usable to 5,000-psi closure stress and a temperature of 200°F. A new generation of proppant has an SG of 1.05, which is nearly buoyant in slickwater, thus allowing farther penetration into the fracture, and it is being used in the Barnett shale. Again, there are limitations to the use of the product: 7,000-psi maximum closure stress and maximum temperature of 225°F. It is used in a partial-monolayer application.

Another recent advance in proppants is lightweight 40/80-mesh ceramic that has an SG and mesh designed specifically for slickwater applications. It has a crush strength of 2% fines at 7,500 psi, a 2.55 SG, and a roundness and sphericity of approximately 0.8. This proppant exhibits a conductivity twice that of resin-coated and white sand.

**Clay Stabilizers.** There is always a question of whether or not a clay stabilizer is required in the water pumped into shales. An analysis of the shales in the northeast US found that clay was abundant, with the most abundant being illite; the majority of the other designation is quartz. The common method of stabilizing clays has been to add KCl, commonly 2 wt% KCl. Many flow tests and capillary-suction-time evaluations show that 2 wt% KCl has a marginal effect on swelling clays. To get the greatest benefit, tests show 4 wt% KCl often is better, but cost then becomes the issue. **JPT**